

INFM 718A / LBSC 705 Seminar in Information for Decision-Making Fall 2009 - Tentative Syllabus

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Office Hours:	By appointment	Office Hours:	-

Class meeting time and place:

Asynchronous online class on BlackBoard (elms.umd.edu).

Catalog Description:

The use of information in organizational and individual decision-making. Manager's behavior in using information, differences between the private and public sectors, and the roles of information professionals and information systems in decision-making.

Extended Description:

Many decision problems encountered in professional life can be modeled and solved by using a range of decision-making and problem-solving methods. There are different ways to group decision-making and problem-solving methods: hard vs. soft, single-criterion vs. multi-criteria, individual vs. group, deterministic vs. probabilistic. This course will introduce basic concepts in decision theory, and a variety of methods that can be used in individual and organizational decision-making and problem-solving. The course will also provide a "descriptive" perspective (in addition to the "normative" perspective) for identifying a variety of biases and errors in human decision-making.

Goals:

After completing this course the student will be able to:

- Understand basic concepts in decision theory,
- Understand basic steps of the decision process,
- Identify decision problems that can be addressed by a range of methods,
- Build simple models for representing a range of decision problems,
- Apply decision-making and problem-solving methods for a range of decision problems, and models,
- Use MS Excel, (and possibly other spreadsheet applications,) to solve such decision problems, and models,
- Understand a range of cognitive, psychological and social pitfalls, which decision makers should avoid,
- Critically evaluate their decisions, and those of others, and develop ways to make better decisions.

Elements of the Course:

The course will run in two streams: Normative Topics and Descriptive Topics. The assigned readings of the first week should clarify the concepts of "normative" and "descriptive" decision-making.

The course will involve three main elements as listed below. These three elements will constitute the students' work for the course, and the basis for grading. Assignments will mostly deal with normative topics, while Online Discussions and the Integrative Essay will focus on descriptive topics.

Online Discussions: Students will be given a discussion topic related to the concepts covered in the descriptive readings each week. The discussions will take place on BlackBoard's "Discussion Board." Each student is expected to summarize his/her position on the given topic, and also reply to other students' positions. Each week's discussion will be graded on a scale of 0 to 5. Simply submitting posts is not enough to get a good mark; 'quality' should be there, as well as 'quantity.' Make sure that you read relevant materials and do the necessary amount of thinking before writing your posts.

Assignments: Students will be given an assignment each week. The assignments will assess the students' mastery of the normative topics covered each week. Students are expected to work *individually* on the assignments. The assignments will be submitted via BlackBoard. Timely submission of the completed assignments is essential. The due date of each assignment will be stated clearly on the course space. If an assignment due date is a religious holiday for you, please let the instructor know at least one week in advance, so an alternate due date can be set for you.

Integrative Essay: Students will choose one of the descriptive topics listed on the course plan early in the semester, and develop an essay on the current state of research on the chosen topic. The students are expected to base their essays on an integration of three or more recent (within the last 10 years) scholarly articles on the chosen topic. The students will have opportunities to discuss their choice of topic and articles with the instructor at specific points in the semester.

Grading:

Online Discussions	30%
Assignments (On Time)	50%
Integrative Essay (On Time)	20%

Required Software:

Microsoft Excel 2003 or 2007 - If you do not have access to a computer that has Excel 2003 or 2007 installed, consider purchasing Office 2007 Enterprise through the UMCP OIT's Academic Select Student License Agreement program. According to the OIT website, students pay \$84 for a license for personal use. (Please see <http://www.oit.umd.edu/slic/howto/homeuse.html>).

Required Texts:*For Normative Topics:*

1-A) Microsoft Excel Data Analysis and Business Modeling (Wayne L. Winston) [EXA]
Microsoft Press - ISBN: 0735619018

OR

1-B) Microsoft Office Excel 2007 Data Analysis and Business Modeling (Wayne L. Winston) [EXB]
Microsoft Press - ISBN: 0735623961

AND*For Descriptive Topics:*

2) The Psychology of Judgment and Decision Making (Scott Plous) [PSY]
McGraw-Hill - ISBN: 0070504776

Other Relevant Texts:

Microsoft Office Excel 2007 Data Analysis: Your Visual Blueprint... (Denise Etheridge)
Visual - ISBN: 0470132299

Excel 2007 Data Analysis For Dummies (Stephen L. Nelson)
For Dummies/Wiley - ISBN: 047004599X

(Consider buying only one of 1-A or 1-B depending on the version of MS Excel you will use for the course: 1-A for Excel 2003, 1-B for Excel 2007.

These books are not available through the university book store. Please consider ordering through your local bookstore or an online store.

Relatively cheap copies of all of the books listed above are available via online stores such as abebooks.com, amazon.com, betterworldbooks.com, bn.com, borders.com, half.com, textbooksrus.com.

The instructor does not endorse these or other websites, or bookstores. Please note that some copies sold online are used. Used copies are usually sold by third-parties, not by the online stores themselves. Please order at your own risk.

Please keep in mind that orders through local stores, as well as online stores, may take a few weeks to arrive. Please order your books as soon as possible. As of August 13, you have a little more than 3 weeks before we start using the books.)

Policy on Academic Misconduct

Cases of academic misconduct will be referred to the Office of Student Conduct irrespective of scope and circumstances, as required by university rules and regulations. It is crucial to understand that the instructors do not have a choice of following other courses of actions in

handling these cases. There are severe consequences of academic misconduct, some of which are permanent and reflected on the student's transcript. For details about procedures governing such referrals and possible consequences for the student please visit <http://www.studentconduct.umd.edu/>

University of Maryland Code of Academic Integrity:

"The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.studenthonorcouncil.umd.edu/whatis.html>."

Special needs

Students with disabilities should inform the instructor of their needs at the beginning of the semester. Please also contact the Disability Support Services (301-314-7682 or www.counseling.umd.edu/DSS/). DSS will make arrangements with the student and the instructor to determine and implement appropriate academic accommodations. Students encountering psychological problems that hamper their course work are referred to the Counseling Center (301-314-7651 or www.counseling.umd.edu/) for expert help.

Tentative Course Plan (Subject to possible change during semester):

	Date	Normative/Prescriptive Topics	Normative/Prescriptive Readings	Descriptive Topics	Descriptive Readings
1	Sept. 01 - 07	Introduction; Decision-making concepts; Excel refresher	[EXA] pp. 1-49 [EXB] pp. 1-44	Normative/Prescriptive vs. Descriptive approaches to decision-making	See External Links > External Readings
2	Sept. 08 - 14	Modeling for decision making; Present Value analysis	[EXA] pp. 51-76 [EXB] pp. 45-67	Selective perception; Cognitive dissonance	[PSY] pp. 15-30
3	Sept. 15 - 21	Goal Seek command; Break-even analysis; Sensitivity analysis	[EXA] pp. 115-149 [EXB] pp. 109-129 and pp. 205-215	Memory and hindsight biases; Context dependence	[PSY] pp. 31-47
4	Sept. 22 - 28	Solver Add-in; Optimization	[EXA] pp. 191-231 [EXB] pp. 217-251	Plasticity; Wording and framing	[PSY] pp. 51-76
5	Sept. 29 - Oct. 05	Summarizing data; Pivot Tables; Filtering, consolidating data	[EXA] pp. 261-332 [EXB] pp. 277-363	Expected utility theory; Paradoxes in rationality	[PSY] pp. 79-93
6	Oct. 06 - 12	Linear, exponential, logarithmic estimations	[EXA] pp. 333-350 [EXB] pp. 365-382	Descriptive models of decision-making	[PSY] pp. 94-105
7	Oct. 13 - 19	Correlations; Multiple Regression	[EXA] pp. 351-364 [EXB] pp. 383-394	Representativeness and Availability heuristics	[PSY] pp. 109-130
8	Oct. 20 - 26	Multiple Regression (cont.)	[EXA] pp. 365-380 [EXB] pp. 395-409	Probability and risk; Anchoring and adjustment	[PSY] pp. 131-152
9	Oct. 27 - Nov. 02	Analysis of Variance	[EXA] pp. 381-396 [EXB] pp. 411-426	Perception of randomness; Correlation, causation and control	[PSY] pp. 153-173
10	Nov. 03 - 09	Time series; Forecasting	[EXA] pp. 397-417 [EXB] pp. 427-444	Attribution theory	[PSY] pp. 174-188
11	Nov. 10 - 16	Random Variables	[EXA] pp. 419-451 [EXB] pp. 445-474	Social influences; Group judgments and decisions	[PSY] pp. 191-214
12	Nov. 17 - 23	Simulations	[EXA] pp. 453-487 [EXB] pp. 475-508	Overconfidence; Self-fulfilling prophecies	[PSY] pp. 217-240
--	Nov. 24 - 30	Thanksgiving Break	---	---	---
13	Dec. 01 - 07	Economic Order Quantity	[EXA] pp. 513-524 [EXB] pp. 531-542	Behavioral traps	[PSY] pp. 241-260
14	Dec. 08 - 14	---	---	Work on Integrative Essay	---